

AMENDED CLAIMS:

Claims 1-20 (canceled)

21. (new) A power selection system for use with a reconfigurable circuit, comprising:
a monitoring circuit configured to determine a transition rate of at least one node located within said reconfigurable circuit; and

a mode selection circuit coupled to said monitoring circuit and configured to alter a power characteristic applied to at least a portion of said reconfigurable circuit based on a comparison between said transition rate and a predetermined operating range.

22. (new) The power selection system as recited in Claim 21 wherein said monitoring circuit comprises a switching counter configured to determine said transition rate.

23. (new) The power selection system as recited in Claim 21 wherein said mode selection circuit is configured to alter said power characteristic by performing an action selected from the group consisting of:

powering down said at least a portion of said reconfigurable circuit,

powering up said at least a portion of said reconfigurable circuit,

enabling said at least a portion of said reconfigurable circuit, and

disabling said at least a portion of said reconfigurable circuit.

24. (new) The power selection system as recited in Claim 21 wherein said monitoring circuit further comprises at least one edge detection circuit configured to determine a voltage change in said at least one node and said transition rate is based on said voltage change.

25. (new) The power selection system as recited in Claim 22 further comprising a timing counter configured to track a period of operation of said reconfigurable circuit and said switching counter is configured to employ said period of operation to determine said transition rate.

26. (new) The power selection system as recited in Claim 21 wherein said mode selection circuit comprises a sample and hold circuit coupled to two voltage comparators.

27. (new) The power selection system as recited in Claim 21 wherein said reconfigurable circuit comprises a Pseudo Random Binary Sequence (PRBS) generator.

28. (new) A method of operating a reconfigurable circuit, comprising:
determining a transition rate of at least one node located within said reconfigurable circuit;
and
altering a power characteristic applied to at least a portion of said reconfigurable circuit based on a comparison between said transition rate and a predetermined operating range.

29. (new) The method as recited in Claim 28 wherein said determining includes aggregating a number of switching transitions associated with said node.

30. (new) The method as recited in Claim 28 wherein said altering includes performing at least one action selected from the group consisting of:

powering down said at least a portion of said reconfigurable circuit,
powering up said at least a portion of said reconfigurable circuit,
enabling said at least a portion of said reconfigurable circuit, and
disabling said at least a portion of said reconfigurable circuit.

31. (new) The method as recited in Claim 28 wherein said determining said transition rate is based on a number of voltage changes in said at least one node.

32. (new) The method as recited in Claim 29 further comprising tracking a period of operation of said reconfigurable circuit and employing said period of operation when determining said transition rate.

33. (new) The method as recited in Claim 28 further comprising sampling and holding an analog representation of said transition rate and comparing a sample of said analog representation to said predetermined operating range.

34. (new) A reconfigurable circuit, comprising:

a monitored sub-circuit, including:

a delay element, associated with a node of said reconfigurable circuit, having a switch;

a multiplier interposed between said node and an output of said reconfigurable circuit; and

a power selection system, including:

a monitoring circuit that determines a transition rate of said node; and

a mode selection circuit coupled to said monitoring circuit that alters a power characteristic applied to said monitored sub-circuit based on a comparison between said transition rate and a predetermined operating range.

35. (new) The reconfigurable circuit as recited in Claim 34 wherein said monitored sub-circuit comprises a plurality of delay elements, associated with a respective node of said reconfigurable circuit, having a corresponding switch and a plurality of multipliers interposed between said one of said nodes and said output of said reconfigurable circuit, said monitoring circuit determines a transition rate associated with at least one of said nodes.

36. (new) The reconfigurable circuit as recited in Claim 34 wherein said transition rate is based on a total number of switching transitions associated with said switch within a period of

operation of said reconfigurable circuit and said monitoring circuit comprises a switching counter that determines said number of said switching transitions.

37. (new) The reconfigurable circuit as recited in Claim 34 wherein said mode selection circuit alters said power characteristic by performing an action selected from the group consisting of:

- powering down said at least a portion of said reconfigurable circuit,
- powering up said at least a portion of said reconfigurable circuit,
- enabling said at least a portion of said reconfigurable circuit, and
- disabling said at least a portion of said reconfigurable circuit.

38. (new) The reconfigurable circuit as recited in Claim 34 wherein said monitoring circuit further comprises at least one edge detection circuit configured to determine a voltage change in said node and said transition rate is based on said voltage change.

39. (new) The reconfigurable circuit as recited in Claim 34 wherein said mode selection circuit comprises a sample and hold circuit coupled to two voltage comparators.

40. (new) The reconfigurable circuit as recited in Claim 34 wherein said monitored sub-circuit is selected from the group consisting of:

- a Pseudo Random Binary Sequence (PRBS) generator, and
- a filter circuit.